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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,345	06/03/2005	Loic Charles	4590-405	3455
33308 7590 12/27/2007 LOWE HAUPTMAN & BERNER, LLP 1700 DIAGONAL ROAD, SUITE 300 ALEXANDRIA, VA 22314			EXAMINER BEAULIEU, YONEL	
			ART UNIT 3661	PAPER NUMBER
			MAIL DATE 12/27/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/537,345		CHARLES, LOIC	
	Examiner		Art Unit	
	/Yonel Beaulieu/		3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Abstract

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "**means**" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 112

Claims 1 – 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In amended claim 1, it is not clear whether Applicant is referring to the same 'imposed waypoint' established in the preamble or a different one - "an imposed waypoint" is noted at lines 6 and 12. Also, "the subsequent automatic following of the flight plan" (bridging last two lines) lacks clear antecedent basis; such has not previously been identified. Furthermore, "the FMS flight computer" (line 7) lacks antecedent basis; such has not previously been identified.

Claims 2 – 7 are necessarily rejected.

Allowable Subject Matter

Claim 1 (along with its dependent claims) would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

The prior art of record fail to teach a method of validating a flight plan constraint, at an imposed waypoint. for a flight computer, comprising, among other limitations, making a forecast of an aerodyne displacement up to the imposed waypoint for a validation of the constraint by [an] FMS flight computer, taking into account of the transition between the instances of application by the aerodyne of the flight presets prevailing before the resumption of the automatic following of the flight plan and those newly provided by the flight computer during the same resumption, and validating the constraint in the case where it would not be complied with by the aerodyne if it reached

[the] imposed waypoint by following the forecast of displacement in order that it remains taking into account subsequent automatic following of the flight plan. The method further taking into account a vertical trajectory forecast made according to a first order variation model complying with the relation:

$$Vz = (Vz_0 - Vz_f)e^{(-t/\zeta)} + Vz_f$$

Where t is the time variable, and ζ a constant characteristic of the aerodyne steered according to a law of acquisition of a vertical speed preset Vz_f

The method further estimating the date t_{seq} of passage of the aerodyne at the constrained waypoint on the basis of $\Delta dist_0$ by applying the relation:

$$t_{seq} = (\Delta dist_0) / (GrdSpd)$$

and further following a first order variation model complying with the relation:

$$\Delta z_{seq} = -\zeta(Vz_0 - Vz_f)(1 - e^{-t_{seq}/\zeta}) + Vz_f \cdot t_{seq}$$

and the validating being in compliance with:

$$|\Delta z_{seq}| > |\Delta z_0| - \Delta z_{marg}$$

Δz_{marg} being a safety altitude margin.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. As per attached PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Yonel Beaulieu/ whose telephone number is (571) 272-

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6955. The examiner can normally be reached on Mon., Wed. & Thur. between 0900 and 1600.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas BLACK can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yonel Beaulieu/
Yonel Beaulieu
Primary Examiner
Art Unit 3661